NH_2 Phe Pro Ile Pro Leu Pro Tyr Cys Trp Leu Cys Arg Ala Leu Ile
Lys Arg Ile Gln Ala Met Ile Pro Lys Gly Ala Leu Ala Val Ala Val
Ala Gln Val Cys Arg Val Val Pro Leu Val Ala Gly Gly Ile Cys
Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile Leu Leu Asp Thr Leu
Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg Leu Val Leu Arg
Cys Ser Met-COOH

FIG. 1

Native Human SP-B 1-25

NH_2-F P I P L P Y C W L C R A L I K R I Q A M I P KG - COOH

SP-B 1-25 (Cys-11 > Ala-11) variant monmer

NH_2-F P I P L P Y C W L A R A L I K R I Q A M I P KG - COOH

Amino acid sequence of SP-B 1-25 (Cys-11 > Ala-11) variant monmer

FIG. 2

SP-B 1-25 (Cys-11 > Ala-11) variant disulfide linked homodimer

NH_2-F P I P L P Y C W L A R A L I K R I Q A M I P KG - COOH
|
S
|
S
|
NH_2-F P I P L P Y C W L A R A L I K R I Q A M I P KG - COOH

Amino acid sequence of SP-B 1-25 (Cys-11 > Ala-11) variant homodimer

FIG. 3

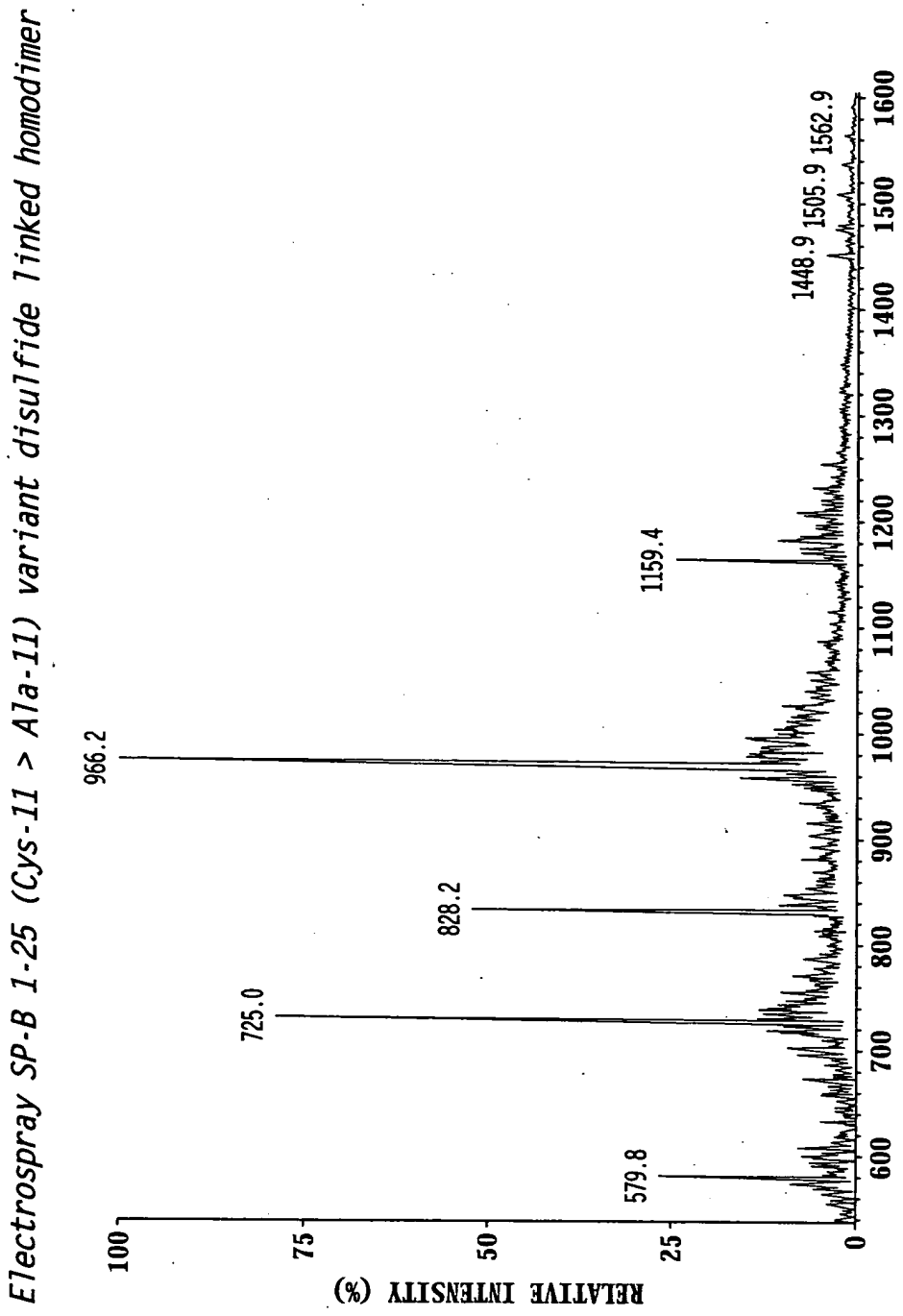
Electrospray SP-B 1-25 (Cys-11 > Ala-11) variant disulfide linked homodimer
RELATIVE INTENSITY (%)
100
75
50
25
0
966.2
725.0
828.2
579.8
1159.4
1448.9
1505.9
1562.9
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
m/z

FIG. 4

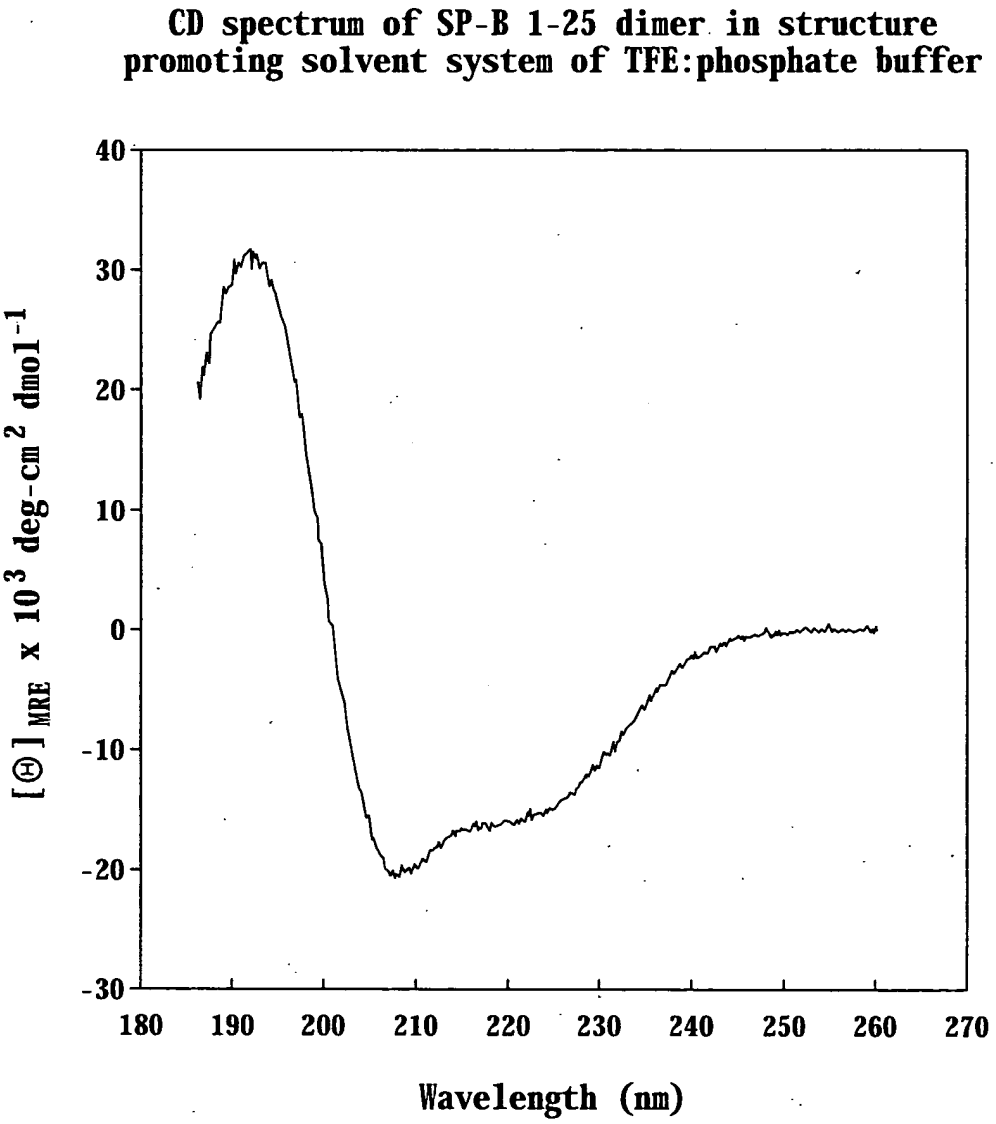
CD spectrum of SP-B 1-25 dimer in structure promoting solvent system of TFE:phosphate buffer
40
30
20
10
0
-10
-20
-30
180
190
200
210
220
230
240
250
260
270
[Θ] MRE x 10^3 deg-cm^2 dmol^-1
Wavelength (nm)

FIG. 5

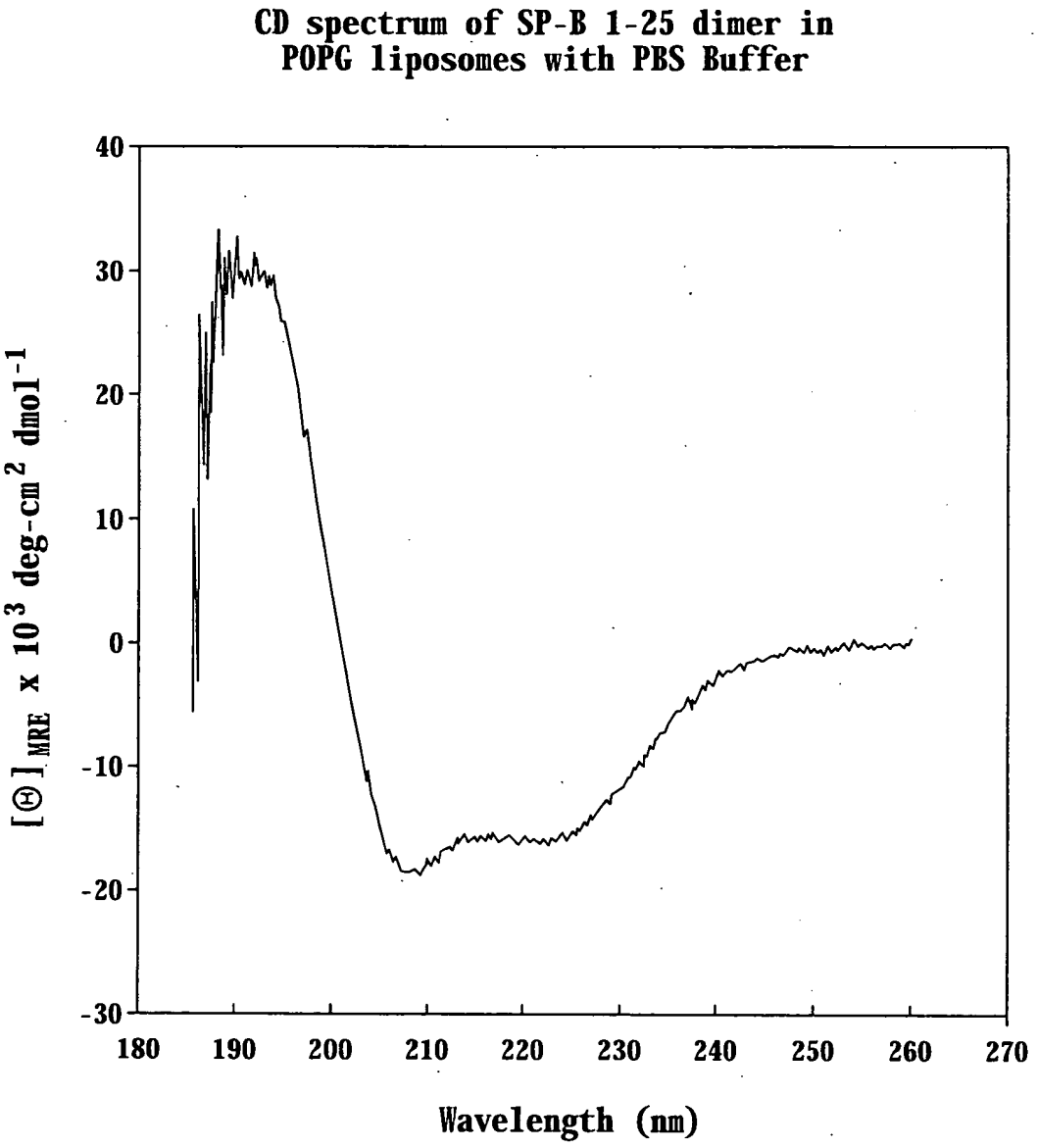
CD spectrum of SP-B 1-25 dimer in
POPG liposomes with PBS Buffer
40
30
20
10
0
-10
-20
-30
180
190
200
210
220
230
240
250
260
270
[Θ]MRE x 10^3 deg-cm^2 dmol^-1
Wavelength (nm)

FIG. 6

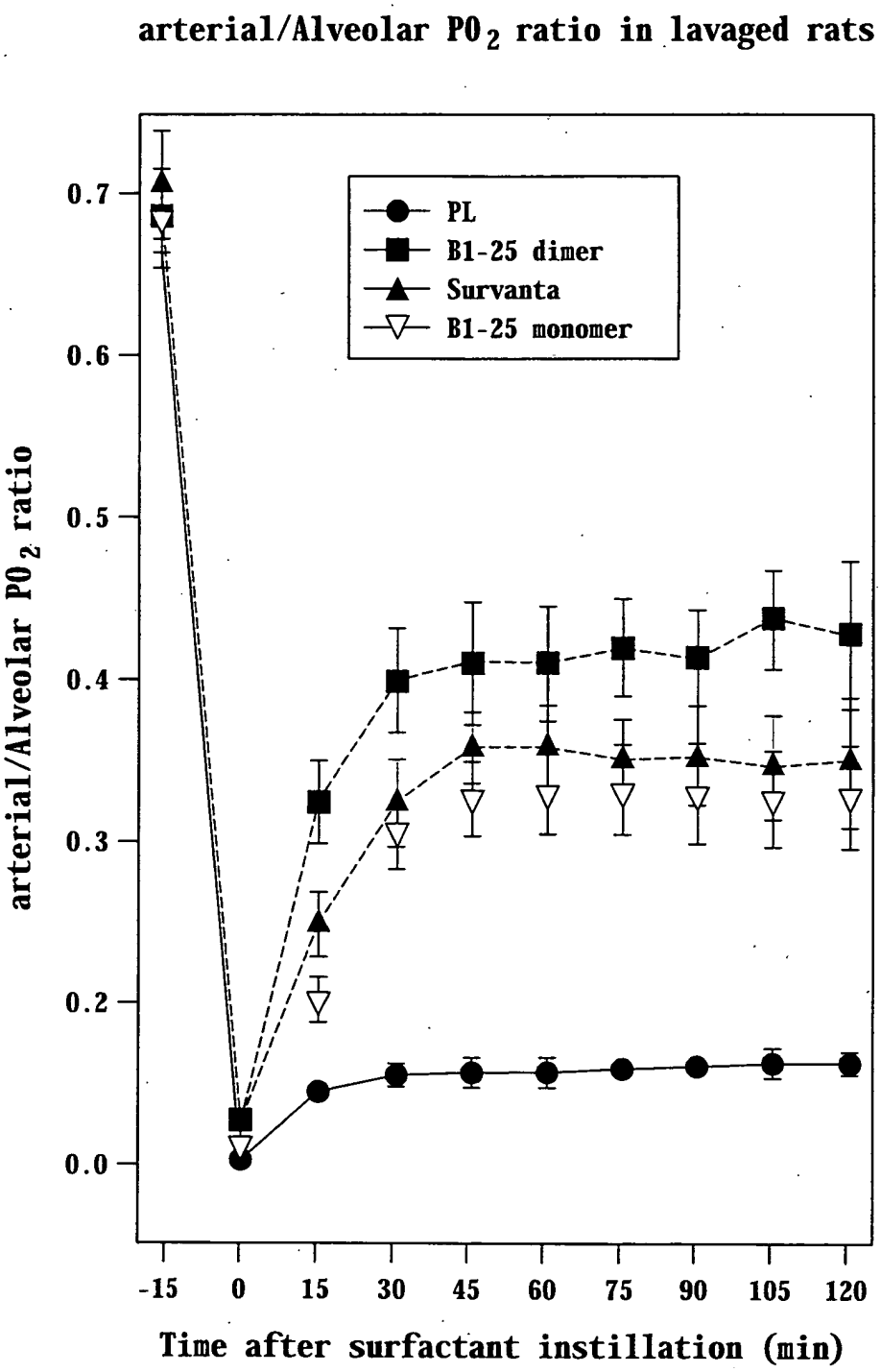
arterial/Alveolar PO_2 ratio in lavaged rats
PL
B1-25 dimer
Survanta
B1-25 monomer
arterial/Alveolar PO_2 ratio
0.0
0.2
0.3
0.4
0.5
0.6
0.7
-15
0
15
30
45
60
75
90
105
120
Time after surfactant instillation (min)

FIG. 7

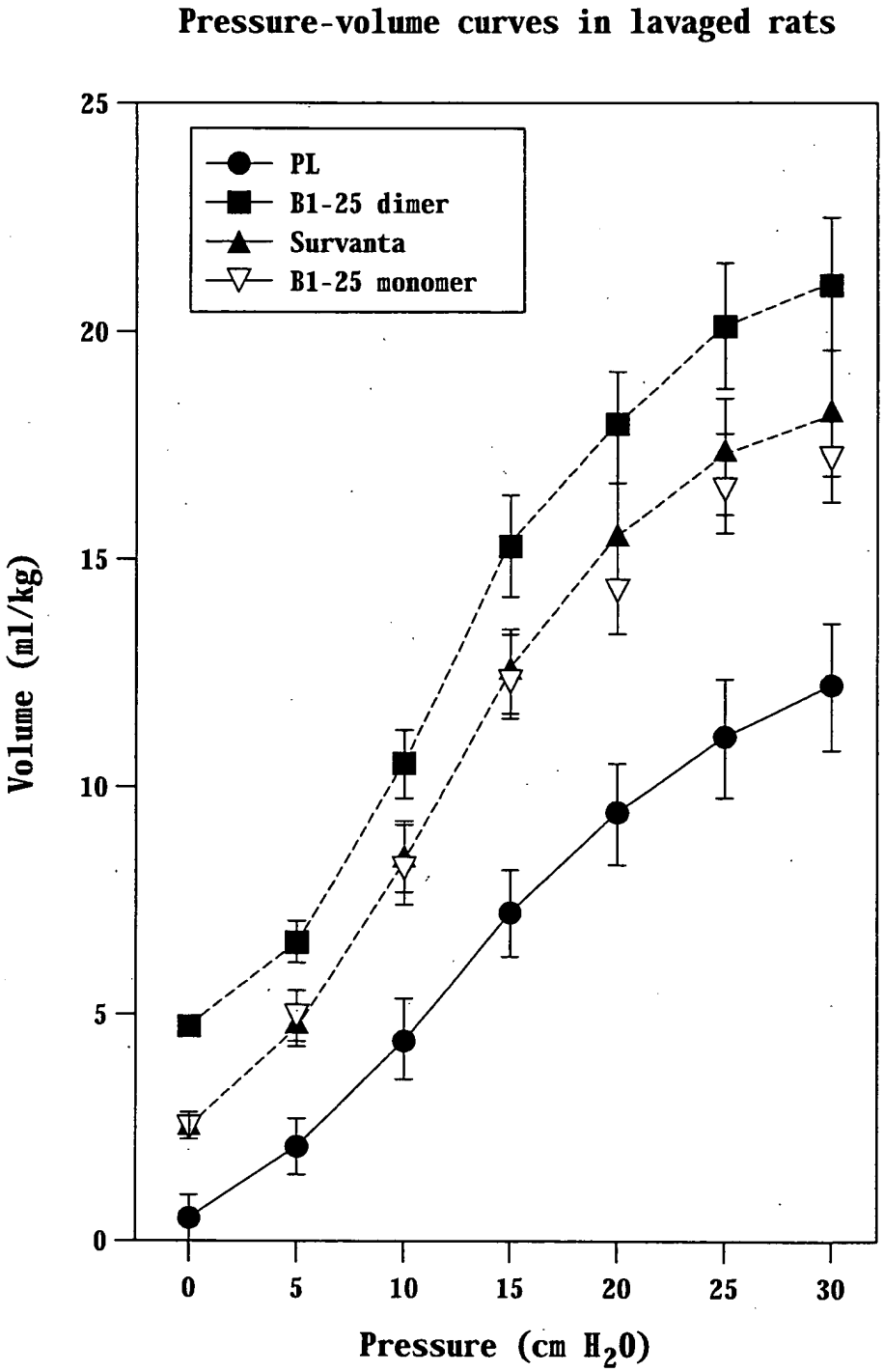
Pressure-volume curves in lavaged rats
PL
B1-25 dimer
Survanta
B1-25 monomer
Volume (ml/kg)
Pressure (cm H_2O)
0
5
10
15
20
25
30

FIG. 8

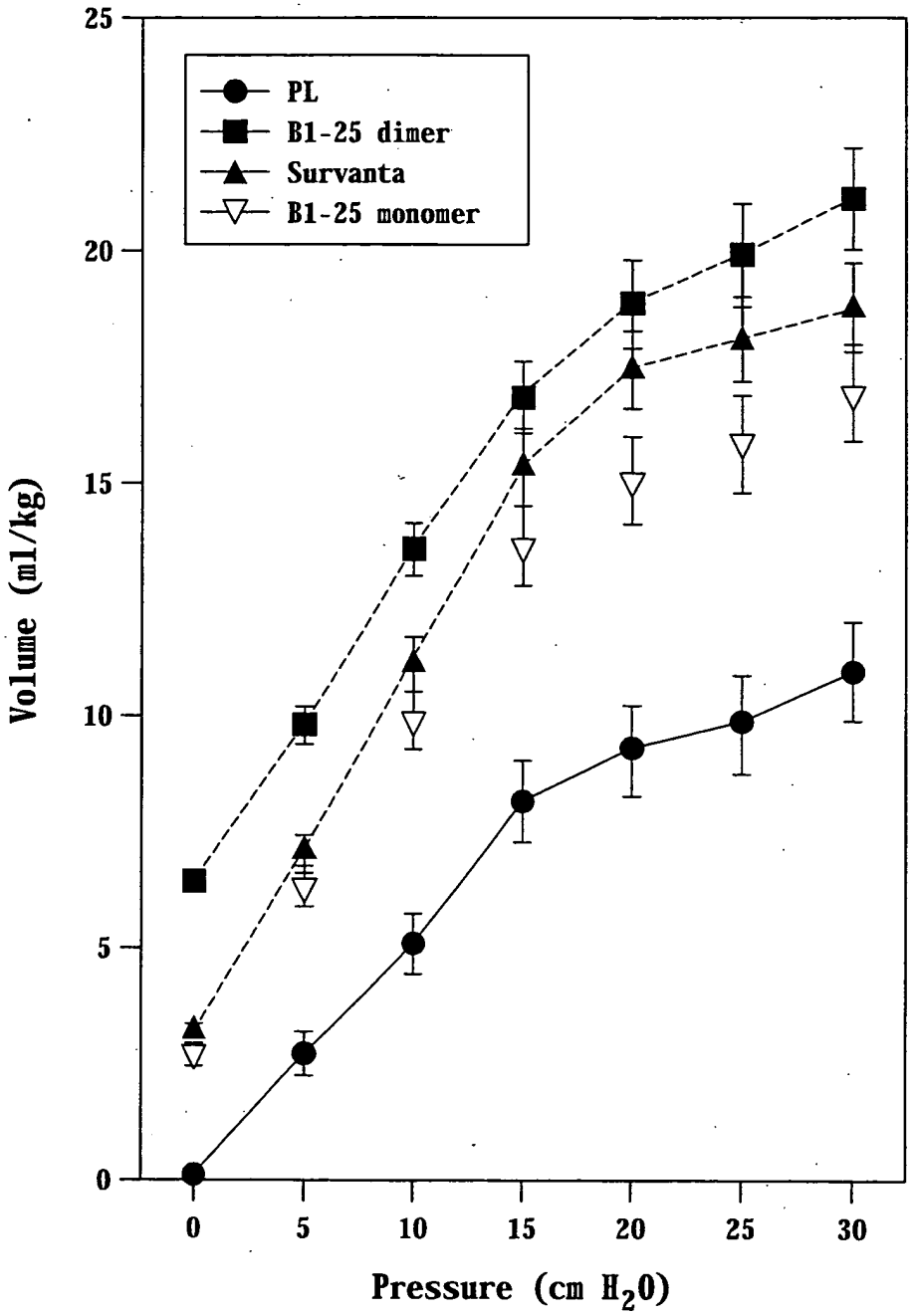
Pressure-volume curves in 27 d gestation rabbits
PL
B1-25 dimer
Survanta
B1-25 monomer
Volume (ml/kg)
Pressure (cm H_2O)
0
5
10
15
20
25
30

FIG. 9